Clandestine Labs: Protecting the Environment and Community

CHAIR: LUKE GALANT, U.S. DEPARTMENT OF JUSTICE-BUREAU OF JUSTICE ASSISTANCE

Recommendations:

- Federal government should target new funds for methamphetamine lab cleanups that incorporate a cooperative effort.
- Improve federal-level coordination for training, equipment and intelligence programs.
- Increase basic awareness training for law enforcement officers in the field, especially in rural areas.

Clandestine lab abatement is not just a law enforcement response. It is a law enforcement, public health and environmental response. The governing body must bring all of the appropriate players into action. The responders must know their roles and responsibilities when they take down a laboratory. BJA has developed a training program and a resource monograph to enable jurisdictions to develop a strategy for a multi-agency response to clandestine laboratories.

First, funding must be increased. Methamphetamine is a drug that is not displacing other drugs – it is an addition to other drug problems. Cleanups of labs are extremely resource-intensive and beyond the financial capabilities of most jurisdictions (the average cost of a cleanup in California averages $3,100, but some cost $150,000). Consequently, if we divert resources from other drug problems to clandestine laboratory enforcement and cleanups, other drug problems will increase. We cannot let this happen. It was the consensus of the group that the federal government needs to target new resources to fund cooperative methamphetamine lab cleanup efforts.

Second, federal leadership must coordinate and set a training standard. Equipment and intelligence programs also must be developed. We need to conduct more baseline research and develop models that show the resources and coordination required for a successful cleanup.

Finally, there is a need for training for personal protection. Responders need to know what methamphetamine is and how it is made. They must know typical locations and the look and smell of clandestine labs. This awareness training is needed especially in rural jurisdictions as these areas are preferred by lab operators; they are not easily observed and can work anonymously.

Drug Courts: Cooperative Efforts in Enforcement and Treatment

CO-CHAIRS: JUDGE RICHARD SHULL, WICHITA, KANSAS AND
ANNE CAMP, UNITED STATES ATTORNEY'S OFFICE OF NEBRASKA

Recommendations:

- Increase funding programs to establish drug courts in urban and non-urban jurisdictions.
- Health-care providers must recognize methamphetamine addiction as a medical problem.
- Increase methamphetamine awareness training in the criminal justice system and with health service providers.

Drug courts are designed to deal with the low-level, nonviolent drug offender. The offender is offered the opportunity to complete a treatment program in return for a dismissal of charges. Results show that graduates have low recidivism and return to productive lives. Our group, which included a mixture of judges, prosecutors, and treatment officials, agreed the program works, and we should expand drug courts. While these courts are more common in urban areas, they need to focus on the rural areas because finding treatment and resources in rural communities is difficult.

First, we must increase federal funding to establish drug courts in urban and non-urban jurisdictions. These courts do not need staff; they need treatment dollars. With this funding support, the courts can conduct follow-up testing and monitor the progress of the individual. Aftercare supervision increases the chance of success, much like intensive probation.

Second, health care providers must recognize methamphetamine addiction as a medical problem. Drug treatment should become as available as getting a cast for a broken arm. It costs $2,000 annually for someone in drug court as compared with $23,000 for incarceration. The use of drug courts is our most cost-effective approach to dealing with the low-level, nonviolent drug offender.

Finally, more awareness training is needed. We need to send the conference report to bar associations, to judges, to health service providers, and to community groups across the country. As a nation, we are not as familiar with methamphetamine as we should be. We must remember the differences between the urban and rural needs. Rural areas just do not have the resources to support these educational programs. Developing, packaging, and providing the training are very important for these areas, as are the treatment resources necessary for follow-up supervision.

Precursor Chemical Control: International and Domestic Efforts to Limit Production

CHAIR; LAURA BIRKMEYER, J.D.,
ASSISTANT UNITED STATES ATTORNEY

Recommendations:

- Make phenylpropanolamine subject to United Nations Convention on Psychotropic Drugs.
- Develop government and industry partnerships with voluntary initiatives combining law enforcement and education.
- Reevaluate sentencing practices of amphetamine drugs.

First, we must close the gaps in international law with respect to the control of precursor chemicals. Ephedrine, pseudoephedrine, and phenylpropanolamine are not made but are imported into the United States. Phenylpropanolamine, for example, should be subject to the United Nations Convention on Psychotropic Drugs. Such a designation would allow the State Department, DEA and others to more effectively negotiate its use and help to limit diversion.

Second, and on the domestic front, we should increase voluntary working relationships with legitimate industry. Up to a year ago, it would have been difficult to find a partnership between legitimate industry and law enforcement. But through the innovative efforts of the DEA and Wal-Mart, we see that such a partnership can work. Price-Cosco is about to enter a very similar agreement with the government to voluntarily restrict the availability of certain precursor products.

These businesses have and will continue to agree to limit the sales of ephedrine, pseudoephedrine, and phenylpropanolamine-based products. Businesses enforce limits by programming registers, displaying appropriate signage, and reducing available stock; employees sometimes steal large quantities of these products. Wholesalers are willing to review and computerize checks of products sent out to customers. Large sellers will flag these sales and verify them before the shipment goes out.

Our final recommendation concerns sentencing practice. We noticed there are gaps in the law. First, while the 1996 Methamphetamine Control Act directed an increase in penalties, the group felt the increase was not sufficient to deter rogue companies, and we should raise the penalties. Secondly, there is great disparity between the sentencing structures and penalties for amphetamine and methamphetamine. Now that phenylpropanolamine is becoming a widely-used precursor product that results in the manufacture of amphetamine, we should make the penalties commensurate.

Medical Panel Discussion: A Doctor's Perspective

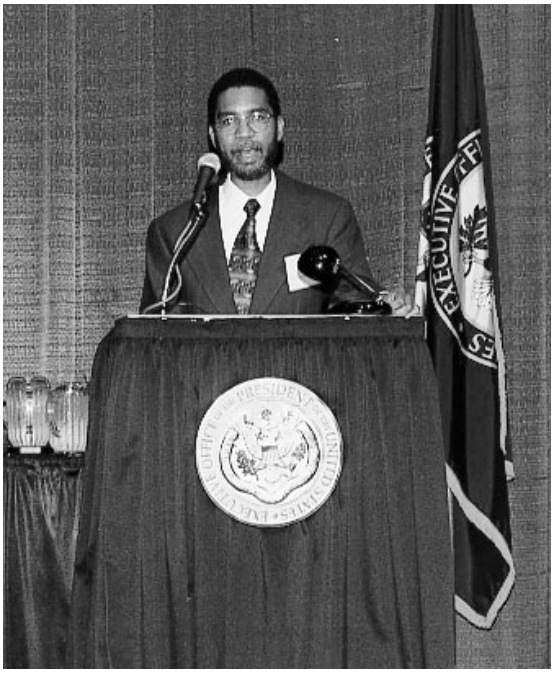
EVERETT ELLINWOOD, M.D., DUKE UNIVERSITY MEDICAL CENTER
TOM LELAND, M.D., COMMUNITY CARE SERVICES
SCOTT LUKAS, PH.D., HARVARD MEDICAL SCHOOL
RICHARD RAWSON, PH.D., THE MATRIX INSTITUTE
MICHAEL SISE, M.D., MERCY HOSPITAL

DR. SISE: Whether we are from law enforcement, treatment or prevention communities, each of us has a different perspective on meth. Over the last day we have shared data and statistics, but it is important to remember there is a human face for each of these numbers.

During the last month, I stitched the heart of a woman stabbed by her methamphetamine dealer who stole her money. I operated all night, trying to remove a clot from the gangrenous leg of a young methamphetamine binger. I confronted an agitated, head-injured college student who rolled his car off the freeway ramp because he was driving too fast after a party where he took methamphetamine. I made that long walk down the hospital corridor to tell a mother that her daughter was shot dead during an argument with her methamphetamine-using boyfriend. For every statistic, there is a human face.

Sooner or later, "methamphetamine means death:" The death that comes from violence or critical illness, the death of future promise for too many young people, and the death of hope for their families. Methamphetamine carries a prognosis that is worse than many cancers. Sometimes, if things go well, I can give them back their lives, but who is going to give them back their futures? I am at the end of the pipeline, and I struggle to prevent those final effects.

I stitched the heart of a woman stabbed by her methamphetamine dealer who stole her money.



Hoover Adger, M.D., Deputy Director of ONDCP, introduces the medical panel.

We have to remember those human faces behind the statistics. When we work to put together a comprehensive strategy that is measured by the number of arrests, interdictions or labs seized, we should also measure the number of lives saved and the number of people whose futures are restored. It is important to remember this number as we carry on the fight.

DR. RAWSON: Performing medications

research, I am aware it is important to develop tools. For those people who are currently addicted to methamphetamine and cocaine, the medications are not yet available, and nothing is on the immediate horizon. We need to look at the resources and knowledge we currently have available and do a better job applying it to the patients who are currently seeking treatment.

In the last five years, the Center for Substance Abuse Treatment (CSAT) has developed a whole series of resources called Treatment Improvement Protocols (TIPS). These are superb documents that make treatment information available for clinicians to use in their practices. However, I still hear treatment workers say, "We have a model that we know works; we do not want to change; it is too hard to learn this new information." Our challenge as physicians is not to wait for a magic bullet or to say we need more money. There are resources and strategies we can apply now.

I think we sometimes underestimate our patients. At the Matrix Institute, we have reviewed the treatment of more than 1,000 methamphetamine users. Many are recovering and lead productive and fulfilling lives. In the follow-up data, more than 150 methamphetamine users achieved an excellent recovery rate. Treatment of the methamphetamine user is not a hopeless condition. The brain changes that occur are, for the most part, reversible over time, and people do become productive.

I would hope we would be able to use a meeting like this as an impetus to get some of this new information, as well as that produced by NIDA, to treatment workers. They need to know that treatment strategies are available. We must make this information more accessible and relevant to their needs.

DR. LELAND: At the end of the pipeline, the time when the treatment community comes on the scene, we physicians are faced with both an opportunity and a challenge to treat the methamphetamine addict. This addict is a victim of a hideous brain disorder that is not a virus dementia, and it reminds us of the lethal, damaged immune system we see in terminal AIDS patients. When we see brain scans of methamphetamine users, we are appalled at the amount of blood vessel damage and wonder if it is reversible.

Our Hawaii "ice storm" is now a decade old and shows no clear sign of ending. Our 4-year-old managed care dual-diagnosis program called Community Care Service is working on this disaster. Initially, we found 30 days of residential treatment to be effective until we realized the ice relapse pattern is often delayed longer than cocaine slips. Treatment must often be extended.

Treatment of the methamphetamine user is not a hopeless condition. The brain changes that occur are, for the most part, reversible over time, and people do become productive.

The ice addict may reuse after 50 days, and the addiction is severe, each slip producing an immediate paranoid psychosis. The "meth run" completely empties the dopamine storage system, and the resulting dysphoria and paranoia seem relentless. NIDA's positron emission technology (PET) scans confirm what users claim: It takes three months for the dopamine depletion to recover. Amino acid nutrients, such as QUIT vitamins with neurotransmitter replacements, are sometimes helpful. These drug survivors, however, are in for a long journey. It takes months before there is any light in the tunnel; sometimes it is a train wreck, but sometimes it is freedom.

The "meth run" completely empties the dopamine storage system, and the resulting dysphoria and paranoia seem relentless.

We have recently connected our research with the Honolulu drug court. It provides the bridge to a therapeutic locus of control. This drug court, with a census of 180(+), obtains weekly drug screens and ensures daily contact with group therapy. It also adds cognitive "restructuring", provides transportation to

Medical doctors share personal views during a special clinical panel about methamphetamine abuse.

appointments, and monitors via home visits and intensive in-community outreach. Dr. Charles Bogdahn and I are doing a small research study on recovering ice hallucinators in the drug court system.

Neuropsychological testing is provided if the person is psychotic upon entry at drug court. We repeat testing when the psychosis subsides, and we perform a third scan with neuropsych tests after six months of sobriety. The subjects are placed on low-doses of the new anti-psychotic medication risperidone (Risperdal). This is our best chance to do follow-up evaluations. Is the methamphetamine psychosis persistent? What about the abnormal blood flow pattern? Judge Aiona's drug court may help provide some answers to a frightening concern. In Honolulu's emergency rooms or police cell blocks, it looks like Armageddon. We must bring more scientific research to bear on this problem.

We have got to find ways to accelerate the process of brain recovery for the heavy abuser.

DR. LUKAS: As a researcher, I have been trained to live and die by statistics, but we cannot lose sight of the real-life stories and the faces behind those statistics, graphs or charts. Like a broken record, I cannot overemphasize that point enough. Because there is no silver bullet for drug abuse, medication development and treatment research must proceed on many different fronts. This process goes on slowly, too slowly perhaps, indirectly contributing to an increase in the numbers. We must do better.

Methamphetamine abuse or dependence is not a homogeneous disease. There are many sub-populations who require specialized treatment, such as the pregnant woman. Last year I had the unfortunate duty, for the first time, of telling three drug dependent women that they were pregnant. Imagine the range of emotions that went through their facial expressions after hearing this and then trying to decide how to deal with this tragic situation. The faces of all three pregnant women are forever etched in my mind. Protecting life – that is what drives researchers to pursue medications.

We have also learned there are very different types of users. Some of you may have heard the term "chippers." These are individuals who will use drugs episodically but have not become fully dependent and are not using drugs on a chronic basis. These people may do well with outpatient treatment, but for the abuser whose brain is changed, we may need a completely different therapeutic approach. We have got to find ways to accelerate the process of brain recovery for the heavy abuser.

Soon I will meet with the director of medications development division at the National Institute on Drug Abuse. We will discuss a collaborative arrangement to study a new, nontoxic drug that, in a pilot study, actually improves brain function and fixes brain membranes. This is the kind of medication we could give to pregnant women and to their children who are dependent.

The challenge for treatment is not unlike that of law enforcement. It may take three, four, or five arrests to finally incarcerate the chemist (the cooker) who made the methamphetamine. Similarly, it may take three, four, or five times for a patient to be treated successfully and remain clean. An analogy would be

a situation in which a doctor tries several medications to reduce a persistent ailment. He tries a medication, measures its results, and determines whether to use another medication. In a similar fashion, we need to develop medications for methamphetamine addiction because we are never certain what will work.

The problem is not only medical, but it is administrative as well. Clinicians can take someone who is dependent on methamphetamine and lock them on a treatment unit. Yet, at 20 days when their insurance runs out, the health management organization says that we must move them out of the program. Although they leave drug-free, it is not the end of the battle with their addiction. Consequently, relapse prevention is one of the key issues we must address.

About a week and a half ago, I ran a study using a process called cue reactivity. It is a process in which we show individuals stimuli or picture situations that remind them of the drug-taking event. There was one fellow who had been dependent for about seven years but was clean for six weeks. We hooked up wires to measure his brain activity, heart, skin temperature and blood pressure and measured his reaction to the stimuli. At the end of the session he said, "You know doctor, I did not feel a thing; you cured me." When I read the tracings from his data, they were off the scale. That told me he had a visceral response inside his mind. His brain and body are still reacting to the simple sight of someone else using a drug.

It is our requirement as researchers to take this type of information and disseminate it to those who can use it. In a way, this describes a process called "from bench to trench." Researchers are working on the benches, and my practicing colleagues are working in the trenches. It is important researchers get information to practicing doctors, and we must get it to you.

Question: I am from an educational development program for women who are incarcerated, and most are crack addicts. Is there a specific person who uses this drug?

DR. RAWSON: In terms of specific groups within those geographic locations where there is a lot of methamphetamine, women are particularly at high risk. Many people who use methamphetamine use it to enhance their work performance. Rather than viewing this as a party or recreational drug, they see it as enhancing their work or child-care activities. The dual-diagnosis patient populations are also at high risk. I think, in all cases, our young people are at risk because they are experimenting. Our youth are curious, and, if methamphetamine is available in the high schools, they will experiment with it.

DEA agents display domestic and international information about methamphetamine production and trafficking.

DR. ELLINWOOD: High-risk populations among women include those who are trying to lose weight. Frequently, they have had experience with anorexics. We have college women who graduated to methamphetamine and other stimulants.

DR. SISE: We have a stereotypical drug user in the back of our minds; we need to break that stereotype with the methamphetamine user. Officials of the San Diego Police Department tell me about the wealthy people – many are women – who drive expensive cars from Rancho Sante Fe and cruise downtown San Diego to make methamphetamine buys. Many adults, like our young people, have virtually no knowledge of its dangers. As Dr. Musto mentioned, we are in a phase of epidemic stimulant use where methampheta-

An agent from the California Bureau of Narcotic Enforcement presents a display showing over-the-counter products and chemicals used to make methamphetamine.

mine is not understood and not feared. We must change this perception.

Question: Dr. Leland, could you briefly explain Hawaii's drug court program?

DR. LELAND: In the drug court pre-sentence phase, nonviolent felons are faced with the alternative of drug court or incarceration. The court recently received a grant for dual-diagnosis and plans to add eight or nine new staff. It is a very successful program. So far the drug court has 189 subjects and successfully graduated 11 at the end of the first year while 25 more are graduating next month. Although the gender is half and half, the most vulnerable population in Hawaii for incarceration and methamphetamine arrests is the single Hawaiian male.

DR. SISE: One of our major problems with screening for methamphetamine, and for alcohol abuse for that matter, is that the language in many health care plans prevents the hospital from being paid if patients are injured from behavior resulting from alcohol or drug use. That is a major disincentive for our trauma centers.

Question: What advice would you give to those of us working with programs and policies relating to prevention?

DR. RAWSON: I am not a prevention expert, but we are working in a dual-diagnosis adolescent treatment center. We found it tremendously important to use accurate facts. Information about methamphetamine effects on the brain must be presented in a way youth understand. We know from prior research that scare tactics do not work; they discredit prevention activities. Facts must be used.

DR. ELLINWOOD: Of all the drugs I know, this is the most frightening one of all. I do not think you need to say too little on methamphetamine abuse.

DR. SISE: I want to add a point about drug and urine screen testing. While this is not a substitute for education and good parenting, it is a powerful tool for parents. The son of a retired veterinarian dropped from an IQ of 140 when he was 18 years old to an IQ of 105 when he was 25 as a result of sustained methamphetamine and crack cocaine use. The father wished he had tested his son. Why? First, he would have known immediately that his son was using drugs. Second, his son would have had a powerful excuse not to bow to peer pressure. Certain populations of youth are at-risk, and drug testing, used as part of a parenting program, can be very effective. I strongly recommend it.

Question: How much graduation is there from the legal use of amphetamines to the illegal use? Can a pharmacist help identify someone who may be at-risk?

DR. ELLINWOOD: We do not have much research on that. However, case studies do show people graduating, perhaps from anorexics in college to methamphetamine. Among bulemic patients, there is a fairly high rate of progression. However, in the amphetamine treatment of narcolepsy and adolescent attention deficit disorder, there are studies showing that the incidence of abuse is not increased. The at-risk patient might be identified as with other controlled drugs, in other words, through "loss of medications," dose escalation, evidence of doctor-shopping and so forth.

Closing Remarks

J. ROBERT KERREY
UNITED STATES SENATOR FROM NEBRASKA

When the founding fathers and Thomas Jefferson wrote our Declaration of Independence – the document that indicted King George III – Thomas Jefferson, in typical fashion, used very general language to describe our purpose. I presume all of you were required to memorize this famous sentence: We hold these truths to be self-evident, that all men are created equal, that they are endowed by their creator with certain inalienable rights, that among these are life, liberty and the pursuit of happiness. It is this pursuit of happiness, especially using these new tools of technology, that gets us human beings in trouble, especially in a nation such as ours that was formed from the beginning on a principle of human freedom.

That we have the freedom to choose and the freedom to create our own future is a deeply-held American principle. We not only have democracy here at home; we fought for it throughout this world. But combined with this freedom and the growing with this technology, we have also seen significant problems created along the way. We have more power, but at the same time, we feel strangely powerless to deal with the problem of methamphetamine and other drugs.

We need participation by parents to help solve the problem of methamphetamine. We, as our children's role models, must get involved in their lives. This is the only way we can give our young people the promise of their birthright.

James McDonough presented the *National Strategy* to us as a tool against the drug problem. The *Strategy* has not been developed from the top but from the ground up. That strategy has been prospective and calls upon all of us to say to the best of our ability: This is what we think must be done. Much of this work involves helping our young people become productive citizens; it also requires that we use history and science in a responsible way. Let me elaborate on these points.

Prior to coming here this morning, I went to Field Club Elementary School to an honors convention for the sixth grade. There were 21 sixth graders and 42 parents at this event. We need participation by parents to help solve the problem of methamphetamine. We, as our children's role models, must get involved in their lives. This is the only way we can give our young people the promise of their birthright.

We need the courage to say to our young people that they must deny themselves at times. They cannot have the freedom to do everything they may want to do if they plan to multiply their talents. We must have the courage to say to our mothers and fathers that they must be good mothers and fathers with their sons and daughters. Parents must spend time with their children and give them guidance and discipline.

We have to muster the courage and say to our business community that it is not good to work the labor force too hard. Business needs not only to maintain zero drug tolerance in the workplace, but to be very careful with its instructions to workers. Business cannot inadvertently push workers into using stimulant drugs to meet industry work demands. This type of manage-

ment philosophy will destroy workers' lives and their futures.

We need to harness the power of science on this drug problem. Whether one believes that God's plan was one of natural selection or as literally described in the Book of Genesis, we human beings have been on the earth for two million years. We have organized ourselves in civilized cities for some 6,000 years. But it is only within the last 400 years that we began, through our intellect, to organize science and use science in the pursuit of our objectives.

Finally, we must add the power of law to our efforts. I intend, as a consequence of listening as much as possible over the last 36 hours, to take your instructions and try to convert them into law. History teaches us that less than 1 or 2 percent of Americans will end the day breaking the law. The law not only tells us what we cannot do, it also tells us what we can do. Because we care, because we are human beings with consciences, because we are willing to try and fail at times, we have made progress by use of law.

A year from now, I hope we will feel a sense of progress under the leadership of Barry McCaffrey. What he has done so well in the past year is to call upon America's young and old, rich or poor, to participate in this battle, not simply to reject this drug problem, but to be able to say that we have responded to God's call. Keep in mind that this is not a national war on drugs; it is a global war on drugs, and we have a distance to go. I hope this conference has provided ideas to make your work more successful as it has for me. Thank you.

Senator Kerrey and Director McCaffrey take a moment to speak with press about the dangers of methamphetamine abuse.

We need to harness the power of science on this drug problem.

Closing Remarks

BARRY R. McCAFFREY, DIRECTOR
OFFICE OF NATIONAL DRUG CONTROL POLICY

I would suggest that the last two days started an incredible, synergistic reaction. We were successful at combining experts from prevention, treatment, law enforcement, the medical community, and the scholastic world. The conference has been absolutely remarkable. Our assembly is what American government is truly all about – hard-working, knowledgeable people who are trying to develop serious policy.

Let me briefly summarize what we learned at this conference: The problem with methamphetamine is not hopeless, and we are making progress. We learned from Professor David Musto that the nation must learn, again, not to take drugs. At the societal level, it is the absence of that learning experience and a general public consensus against taking drugs that causes a drug epidemic. Stimulant use rises and falls based upon how well Americans remember the past. Drug use declines when the American people get organized, and there is public condemnation of drug abuse.

Drug use declines when the American people get organized, and there is public condemnation of drug abuse.

Dr. Alan Leshner's insights gave us hope that we can treat the methamphetamine addict. Although we need to do more to develop medications and treatment protocols, we have a science-based strategy that will give us guidelines to rehabilitate the addict. Jeremy Travis, the director of NIJ, presented Drug Use Forecasting system data that show methamphetamine use plummeting in some cities. Methamphetamine use in Dallas is down 52 % while in Denver, Omaha, and Phoenix, it is down 40 %, and in Los Angeles, 75%. Clearly, the problem will respond to our enforcement measures. From Randy Weaver of the National Drug Intelligence Center, we now know that placing restrictions on precursor controls affects production and trafficking patterns. We have the tools to help the law enforcement community do its job.

Attorney General Reno's speech was brilliant guidance from the chief law enforcement officer in the United States. She devised many innovations in her previous career prosecuting and treating drug cases in south Florida. She, along with Louis Freeh and other people in law enforcement, is saying: If you want to solve this problem, you must include prevention and treatment as central components. We also learned much from DEA Administrator Tom Constantine. He has increased investigations to stop international trafficking organizations and is providing training and assistance to help local law enforcement on clandestine lab takedowns. Besides his 34 years of service to law enforcement, he is also a dad and grandfather. He understands what is at stake here.

The federal government will help to reduce the methamphetamine problem. I am pleased to announce that ONDCP allocated $10 million from its Congressionally-mandated discretionary funds against this drug threat. First, ONDCP will give $4 million to DEA to create national precursor and clandestine lab databases. Secondly, ONDCP will put $4.2 million

into NIDA to study the physiological effects of methamphetamine. Next, ONDCP will give a million dollars to the EPA to develop clandestine lab cleanup and educational programs. Finally, ONDCP will put $700,000 into the Southwest Border Initiative to assist law enforcement officials in coordinating anti-methamphetamine activities along the border.

We must remember that with this federal assistance comes local responsibility. In America, our values, standards, and civilization are locally-based. Americans are free people who do not tolerate social engineering. We must understand that drug abuse is a local problem, and we must encourage local role models to take action. Let me give two examples.

The first is Mayor Lee Clancey of Cedar Rapids, Iowa. I joined her at the opening of a $14 million public safety center. She and her predecessors spent two years walking people through the old police station and jail. These leaders made the case for a bond issue to develop a treatment center and won. The second example is Claire McCaskill, Jackson County prosecutor from the COMBAT[3] program in the Kansas City area. The first time COMBAT linked treatment, law enforcement, and prevention initiatives, the local political leadership had to go to the people and say, "Will you vote for this measure?" They then won the support of the people, and when the measure came up for renewal, the second vote of approval was much greater than the first. Both actions are statements of confidence that credible leadership at the local level can make a difference.

Let me close by again thanking Senator Kerrey for his leadership. There are many people on the Hill who are very serious and knowledgeable about the drug problem. Many of these leaders have spent all of their adult lives trying to reduce drug abuse. Senator Kerrey is one of them, and his leadership is instrumental in this effort.

We must remember that with this federal assistance comes local responsibility.

Allow me to also thank the team that put this conference together. The ONDCP staff, and in particular, Steve Wilkins, my architect for the conference, did an outstanding job. Toba Cohen and many others on Senator Kerrey's staff did yeomen's work to make this event happen – thank you. Again, let me commend Dr. Berndt and the University of Nebraska Medical Center for their funding and assistance.

In closing, let me thank all of you. The most precious thing you have is your time, and you donated it to a learning experience for the genesis of new ideas. It was a privilege to listen to you. We will take your ideas and try to put them in action, but do not get impatient. This methamphetamine problem will respond to our efforts, but it will take a number of years. We are engaged, and we are going to put together the tools to do a better job against this drug menace. We did not get organized in the 1980s with cocaine and crack. We have an opportunity to confront this dreadful drug now, and we are going to do so. Thank you very much for your participation.

[3]The Community-Backed Anti-drug Tax, known as COMBAT, was approved in a November 1989 referendum in Jackson County, Missouri. It was the first jurisdiction to enact a sales tax to fund a broad-based attack against drugs. In November, 1995, 71% of the voters renewed the tax for another seven years. See NCJ publication 160937, July, 1996.

THE NATIONAL METHAMPHETAMINE CONFERENCE
May 28-30, 1997
Omaha, Nebraska
Red Lion Hotel
By Invitation Only

Wednesday, May 28

1:00 pm - 6:00 pm	Registration - Main Lobby, Red Lion Hotel
6:30 pm - 8:00 pm	Reception. (photographs available) (closed press) Welcome by Director and Select VIPs
Thursday, May 29	(open press except for afternoon workgroups)
7:00 am - 8:00 am	Continental Breakfast - View Displays - Late Registration
8:00 am - 8:30 am	Opening: Welcome from National Leaders Remarks by Director McCaffrey
8:30 am - 8:45 am	Remarks: U.S. Senator Robert Kerrey (D), Nebraska
8:45 am - 9:00 am	Remarks: Governor Benjamin Nelson (D), Nebraska
9:00 am - 9:35 am	History - "The American Experience with Stimulants" David F. Musto, M.D., Professor of History of Medicine, Yale University
9:35 am - 10:10 am	Treatment - "Effects on the Brain and Body" Alan I. Leshner, Ph.D., Director, National Institute on Drug Abuse
10:10 am - 10:50 am	Break - View Displays
10:50 am - 11:25 am	Research - "Arrestee Drug Abuse Monitoring System" Jeremy Travis, J.D., Director, National Institute of Justice
11:25 am - 11:50 am	Intelligence - "Trafficking Organizations" Randy Weaver, Senior Research Specialist, National Drug Intelligence Center

11:50 am - 12:15 pm	Administrative notes, break and move to luncheon
12:15 pm - 1:30 pm	Working luncheon (open press) Keynote: Thomas Constantine, Administrator, Drug Enforcement Administration

Thursday, May 29 (cont'd)

1:30 pm - 5:00 pm	Workgroups - Presentations, Discussion and Recommendations (closed press)

1. Prevention: Public Information Initiatives at Home and Work
2. Education: School and Community Partnerships
3. Treatment: Implications for Prevention and Law Enforcement
4. Clandestine Labs: Protecting the Environment and Community
5. Drug Courts: Cooperative Efforts in Enforcement and Treatment
6. Precursor Chemical Control: Domestic and International Enforcement Efforts

(Note: Each workgroup will have a health, prevention and/or law enforcement specialist as presenters. This is followed by discussion of workgroup theme.)

5:00 pm - 6:00 pm	Break
6:00 pm - 7:00 pm	Reception hosted by Director and Select VIPs (closed press)
7:00 pm - 9:00 pm	Working Dinner (open press) Keynote: Janet Reno, United States Attorney General
Friday, May 30	(open press except as noted)
7:00 am - 8:00 am	Continental Breakfast - View Displays - (closed press)
8:00 am - 9:10 am	Panel: Workgroups Report (7-mins each group)
9:10 am - 9:45 am	Panel: Clinical Panel of Health Experts
9:45 am - 10:10 am	Strategy - *The 1997 National Drug Control Strategy* James R. McDonough, Senior Strategist, ONDCP
10:10 am - 10:25 am	Break - View Displays
10:25 am - 10:45 am	Plenary Address: Summation and Reflection on Future Efforts U.S. Senator Robert Kerrey and Director Barry R. McCaffrey
10:45 am - 11:00 am	Break and set up press conference
11:00 am - 11:30 am	ONDCP Press Conference - Open to all conferees
11:30 am	Conference Ends

Workgroup Briefings

The conference workgroups opened with briefings from experts and practitioners followed by open discussion of the group theme. The purpose of the briefings was to stimulate thought, discussion, and recommendations on the broader themes of: prevention, education, treatment, clandestine labs, drug courts, and precursor chemical control. What follows is a brief digest of this workgroup activity. The briefings are given in order of presentation.

Workgroup 1

PREVENTION: PUBLIC INFORMATION
INITIATIVES AT HOME AND WORK

PRESENTATION SUMMARIES:

"TOXICITY OF METHAMPHETAMINE USE," GABRIEL GEORGES NAHAS, M.D., PH.D., PHYSIOLOGIST AND PHARMACOLOGIST, NEW YORK UNIVERSITY MEDICAL CENTER, NEW YORK CITY, NEW YORK

The basic message of the toxicity of methamphetamine to brain, behavior and reproductive function must be spelled out for parents to consider and motivate their preventive efforts oriented towards abstention from the drug. The experimental evidence of neuronal destruction is scientifically established (since 1987), and "methamphetamine toxicity" should be the primary topic of any preventive initiative.

Methamphetamine, cocaine and other psycho stimulants affect the brain's so-called "limbic system," which also controls the body's reproduction and nutrition functions. Dr. Nahas reported on many medical articles describing complications such as convulsion, stroke, brain hemorrhage, heart attack and sudden death that occur with psycho stimulantsdrug use. He underscored that damage resulting from amphetamine and methamphetamine abuse is much worse than any other drug, profoundly altering the information processing in the brain by interactions with cellular mechanisms.

Dr. Nahas stressed that the methamphetamine abuser may suffer persistent damage to the brain, an important fact that informational campaigns should bring to the attention of the public. He also discussed the deleterious effect of psycho stimulants use on the human reproductive function and outlined Yale University studies reporting that cocaine abuse impairs fetal development. This drug alters the migration of cells to the brain early in the development stage, causing permanent structural changes.

Consequently, many physicians believe that the toxicity of methamphetamine should be at the center of any prevention program in order to clearly spell out the necessity of abstention from its use. Methamphetamine ("speed, ice") is a man-made, major stimulant-hallucinogenic compound (which associates the properties of cocaine with that of LSD) and induces an enslaving dependence. It kills by causing heart failure (myocardial infarction), brain damage, and stroke (a form of brain infarction), and it induces extreme, acute psychiatric and psychological symptoms that may lead to suicide or murder. Chronic use, generated by dependence to the drug, exacerbates all of these symptoms. A detailed description of the neurotoxicity of amphetamines and surrogates is in Ellenhorns' "Medical Toxicology" (1997), "Neurotoxicity and Neuropathology Associated with Cocaine Abuse," NIDA's Monograph #163 (1996), and Goodman and Gilman's textbook of pharmacology (1996).

Besides the toxic effects of the drug, a prevention policy against methamphetamine use should consider the success of two countries, Japan and Sweden. These countries managed to roll back major epidemics of amphetamine abuse by adopting a policy based on: (1) A national consensus supported by a media campaign recognizing the personal and soci-

etal damage wrought by amphetamine and the necessity of curtailing its use, and (2) strict implementation of the United Nations conventions on narcotics, which ban use, possession and traffic of addictive substances under penalty of the law. Zero tolerance to the drug was the goal of this national policy, and it was achieved.

Japan was the first country to face an epidemic of amphetamine addiction during the 1950s when amphetamine-induced criminal behavior resulted in thousands of arrests. As a result of an exemplary anti-drug campaign, there were only several hundred arrests a few years later. The Japanese were able to interdict fabrication and traffic of amphetamine by strict law enforcement measures combined with sound prevention policy. Sweden had an epidemic of amphetamine in the 1960s when the drug was freely provided by physicians. This epidemic was curtailed by a similar policy based on interdiction of traffic and systematic early referrals of addicts to rehabilitation centers. However, the production and the source of supply could not be entirely controlled in Sweden as in Japan because of the proximity of Holland, which continues to smuggle the drug into Sweden and has become a major market for drugs.

Q Is there consensus within the scientific community that methamphetamine abuse causes permanent brain damage?

A Yes, the body of knowledge illustrating this point dates back 13 years and is abundantly reported in the medical literature and in several monographs.

Q If methamphetamine use can result in permanent brain damage, how is it that physicians can prescribe the drug to patients?

A The key is in the dosage. Methamphetamine abusers use much higher dosages of the drug than a physician would routinely prescribe when treating a patient. Furthermore, the long-term effects of psycho stimulants (as approved medication) on the brain have not been clearly established and are the subject of a persistent controversy.

"PHARMACEUTICAL INDUSTRY PROGRAMS,"
EVE BACHRACH, J.D., DEPUTY GENERAL COUNSEL, NONPRESCRIPTION DRUG MANUFACTURERS ASSOCIATION (NDMA), WASHINGTON, D.C.

JIM KIELLEY, BUSINESS DIRECTOR, WARNER-LAMBERT, NEW YORK, NEW YORK

Legitimate drug manufacturers are facing real problems with illegal use of over-the-counter (OTC) products. Many common OTC medications for coughs, colds and allergies contain the precursor chemicals necessary for methamphetamine production. Although most of the methamphetamine production today comes from the Mexican drug cartels, U.S. drug companies must find ways to prevent the diversion of legal drugs into the hands of "bathtub meth labs" currently springing up around the United States. The speaker emphasized that "it is a multi-level problem that requires multi-level approaches."

Several NDMA approaches include the following:

- The support of diversion control laws at the federal and state level, including compliance with the Methamphetamine Control Act of 1996.
- The education of drug company retailers, wholesalers and distributors to be suspicious of unusually large amounts of OTC drugs sold to individual parties.
- The encouragement of individual drug companies to repackage their products in smaller sizes (blister packs) to meet the "safe-harbor" packaging provision of the Methamphetamine Control Act.
- The education of youth to prevent them from experimenting with drugs. For example, the NDMA is underwriting a major methamphetamine campaign currently in the research phase and coordinated by the Partnership for a Drug-Free America.

Kielley outlined Warner-Lambert's efforts to act in partnership with the NDMA. He said Warner-Lambert will meet the packaging requirements of the Methamphetamine Con-

trol Act of 1996 by October, 1997. He also said his company is developing a "Break the Silence" program to help Warner-Lambert employees talk to their children about drugs.

"PDFA INITIATIVES," LESLIE BLOOM, WESTERN REGIONAL DIRECTOR PARTNERSHIP FOR A DRUG-FREE AMERICA, PHOENIX, ARIZONA

Bloom discussed the PDFA's use of media advertising to reduce the demand for illegal drugs. A recent PDFA study analyzed advertising messages that ran twice as often in 11 targeted cities or markets. They recorded increases in anti-drug attitudes and corresponding declines in drug use. The results were dramatic. The value of the total media contribution from April, 1987, to July, 1998, was $2.7 billion.

She also spoke about the importance of PDFA partnerships. Working with statewide anti-drug organizations at no cost, PDFA provides the guidance, technical assistance and materials necessary to shape a multimedia campaign tailored to the needs and activities within the state. Often, PDFA applies the same approach to large cities. The PDFA media messages also help the target audience build self-esteem. "There is a perception among youth that everyone is doing drugs, and if you don't use, you're not cool," Bloom said. PDFA targets its efforts against this thinking.

Several renowned institutions have validated the PDFA approach. The department of pediatrics at the Johns Hopkins University School of Medicine, the Leonard N. Stern School of Business at New York University and the Institute for Social Research at the University of Michigan endorse this media informational approach.

"WORKPLACE DRUG INFORMATION PROGRAMS," DAVID HATCHER, PRESIDENT, HATCHER CONSULTANTS, INC., TOPEKA, KANSAS

Research about drug use in the workplace shows: (1) employers have drug users on their payrolls; (2) drug use is harmful to work productivity; and (3) employers want to do something about the problem. The following statistics reveal the extent of employee drug use:

- Eleven percent of the work force uses illegal drugs.
- Nine percent use alcohol on the job.
- Seventy percent of all illegal drug users are employed at some time.

Drug use in the workplace reduces productivity in such areas as increased safety violations, absenteeism, and poor performance. Consequently, employers want to correct this behavior and desire to establish workplace drug programs. Yet, the major impediment for the lack of workplace drug abuse programs relates to the financial incentive. Several companies do not want to make a drug policy program or improve an existing one, due to a tight hiring market or the chief financial officer (CFO) thinking such programs are not cost-effective. More businesses need instruction on the costs of employee drug abuse; changes must occur with tax and insurance incentives to improve the odds of operating a successful drug prevention program within industry.

DISCUSSION - QUESTIONS AND COMMENTS

- Do we recommend a national information campaign focused specifically on methamphetamine abuse?
- What should the elements and target audiences of the campaign be?
- What are the roles of NGOs and different levels of government in the campaign?
- How can we measure the effectiveness of the campaign?
- *The campaign should focus on substance abuse and the nature of addiction.*
- *Those of us who work in prevention know that an information campaign is only one "slice" of prevention. The first component of prevention is a relationship with a caring adult, preferably the parents.*
- *Messages must get inside the home with a*

focus on the family.

- *Parents must break drug use initiation by focusing on the gateway drugs.*
- *The campaign should be controlled at the state level, such as through block grants.*
- *A national campaign would greatly enhance the efforts already in place. We need to reach parents through the workplace by making information available to employers.*
- *Analysis of the target population affected by meth use must be built into the program.*
- *Other prevention tools – not just video media – must be integrated into the policy.*
- *Existing communities and alliances know what works best.*
- *Methamphetamine use appears to follow the meat-packing industry. Employees are using it initially to survive on the job or to work two or three jobs.*
- *No one understands the violence associated with methamphetamine use.*
- *Schools, churches, and employers need different messages.*
- *We need support from the medical field to address the methamphetamine issue. Where are the doctors?*
- *A national program should target new or emerging areas. Methamphetamine is not yet a problem in New England, but there is a resurgence of heroin use there.*
- *With the evolution of managed care, insurance companies are more willing to fund prevention opportunities. They view it as a reinvestment into the community.*

Workgroup 2

EDUCATION: SCHOOL AND COMMUNITY PARTNERSHIPS

PRESENTATION SUMMARIES:

"COMMUNITY-BASED COALITIONS," DAVID WALKER, EXECUTIVE DIRECTOR, NORTH CAROLINA PARTNERSHIP FOR CHILDREN, RALEIGH, NORTH CAROLINA

We need to increase community-based collaboration. Partnerships linking schools, businesses, and other groups promote important interactions where all partners are equal and complement each organization's needs. For successful collaboration, we must identify potential and appropriate partners, create new interventions, and develop responsive and appropriate public policies.

Eighteen percent of children entering school are unprepared and therefore at increased risk for dropout and other problems. According to a recent study (Smart School, 1993, by Governor Hunt), the main area of focus must be entry to school. For success, a child must be healthy and ready to learn. Early intervention programs serving ages 0-5 years are important to later success.

Partnerships begin with a diverse board of directors. Many funders mandate the following as a prerequisite: Law enforcement, schools, community colleges, universities, extension services, programs such as Head Start, and the faith community. Outcomes expected by these same funders include:

- Increased quality and cost-effectiveness due to pooling of resources.
- Increased level of immunizations and health screenings.
- Increase in effectiveness of parent/support groups.
- Increased attention to funding for child-care subsidies.
- Improved parental involvement.

"DARE RESPONDS" WILLIAM ALDEN, DEPUTY DIRECTOR, DARE AMERICA, ALEXANDRIA, VIRGINIA

The Drug Abuse and Resistance Education (DARE) program is a prevention program that is also growing internationally. In the United States, 70 percent of school districts in the country have D.A.R.E.. Local police deliver a K-12 curriculum in the community. D.A.R.E. boasts an enrollment of more than 5 million fifth and sixth graders who have 17 one-hour lessons.The program shows positive short-term effects, but no program can inoculate youth for life. We should offer it consistently over the entire school experience to improve long-range performance. The D.A.R.E. program is replicable and transformable from school to school; it is a public/private partnership. Current activities include a newly completed revision of the middle and high-school curricula. Funding for research and development is needed from the private sector. More officers are needed in the middle schools.

"DRUGS ARE A DEAD END CAMPAIGN," DICK PALMQUIST AND KAREN WALKLIN, NEBRASKA BROADCASTERS ASSOCIATION, LINCOLN, NEBRASKA

A brief historical review of Nebraska's anti-drug campaign was given as an example of a

media, government and corporate partnership. Campaign activities started in 1989, combining the forces of state prevention and treatment agencies, the Nebraska State Patrol, the Governor's office, Mutual of Omaha as corporate sponsor, and the Nebraska Broadcasters Association. Broadcasters focus radio and TV announcements on three major areas: (1) prevention, (2) intervention and treatment, and (3) law enforcement. In the fall of 1996, spots centered on educating parents and users about methamphetamine – its characteristics, the dangers of use, and the increased chance of arrest. A toll-free hotline is promoted in the spots, and calls to the hotline have measured the program as successful.

"LURE OF METH FOR ADOLESCENTS," CATHY SIDERS, PH.D., PSYCHOLOGIST OMAHA, NEBRASKA

There is an increase in usage and an increase in adolescents with first-time experimentation. Factors which make adolescents particularly vulnerable include common experiences, body changes and fluctuation of hormones, and peer influence. Fluctuating moods are normal for adolescents, and a quick fix with methamphetamine is often tried. Between 1990 and 1994, there was a documented increase in high-school seniors who tried methamphetamine at least once. Besides the overall rise in usage, 10th-grade students perceive methamphetamine is easy to buy.

School-based programs must teach adolescents to be more assertive and direct with their peers by use of refusal skills, not alienation actions. Learning strategies are complex; preaching or teaching is insufficient and must have active participation between teacher and pupil to be effective. Personal relationships are key. Adults can still influence adolescents' thinking and must structure learning so youth are involved with their adult mentors.

DISCUSSION - QUESTIONS AND COMMENTS

- Is there a need for school-based initiatives? Why or why not?
- How can we mobilize the community effort?
- What are the incentives for this approach?

- *Focus groups from high schools ask us to visually show the damage to the brain.*
- *Students need a knowledge base to have a reason to refuse; this includes the science of what drugs do to their brains and how drugs affect their lives, families, and communities.*
- *Coordination with health care centers at schools is important.*
- *Quality of life comes from the neighborhood and family; it spills over into the schools.*
- *Is the only avenue to youth through the schools?*
- *This is an opportunity to help parents with parenting and give them methods to talk to their children. It is supplemental education to what parents provide at home.*
- *School should not be the sole source; we are emphasizing schools too much. We must use external resources to help schools.*
- *Curricula must be uniform from ages 12-18. We must improve peer learning through better use of the religious community and individual programs.*
- *An adolescent used to have 12 influential adults in his or her life. Today that number is only 2 or 3. We must look for more adult mentors.*
- *Colleges need to accept more responsibility. How can we make this happen?*
- *Almost no evidence is available regarding efficacy. We need positive outcome studies.*
- *The bulk of the students' time is spent at school. Time at home is often unsupervised. Schools have the structure to teach the message, and students are a captive audience.*
- *Students are the community of the future, and our work at school is an investment in that community.*

- *Families are often unable and untrained to deal with these issues. Skills such as problem solving, interpersonal relationship building, and socialization cannot be completely accomplished at home.*
- *We must have rigorous evaluation and have outcome-based programs using both quantitative and qualitative standards.*
- *No other alternative exists for high-risk families; the community and school must help.*

PRESENTATION SUMMARIES:

"PUBLIC HEALTH CONSEQUENCES OF METHAMPHETAMINE ABUSERS," MICHAEL SISE, M.D., TRAUMA SERVICES MERCY HOSPITAL, SAN DIEGO, CALIFORNIA

Dr. Sise is a trauma surgeon whose job positions him for patients with high-risk behaviors and who believes methamphetamine use in San Diego has become a plague. He states, "You will inevitably die, whether directly or indirectly, from the use of methamphetamine." Dr. Sise feels treatment results are dismal, and the prognosis is worse than cancer. Given these extreme treatment difficulties, he encourages strong prevention programs to reduce first-time use.

Methamphetamine causes changes in the heart similar to a heart attack, such as arrhythmias and ventricular fibrillation. Other side effects include weight loss, increased risk of blood clots, stroke, hyperthermia, greater odds of becoming a victim of criminal activity and child abuse. Methamphetamine abuse also causes problems for society in terms of increased costs because most users have no health insurance and use public funds. A change in the demographics of addicts shows methamphetamine is now used more frequently by women, college students and white collar workers.

Alcohol is still the number-one drug of abuse, but methamphetamine is a close second in the San Diego area. Tolerance is a major problem; addicts need increased doses to get high, but paranoia starts at the same level. Due to hyperthermia and thermal positional asphyxia, methamphetamine also causes a syndrome known as "death in custody," which presents great problems to law enforcement. Methamphetamine also causes problems with fetal development in pregnant women due to decreased blood flow that strangles the placenta. Other problems include dystonia, lethargy, learning disabilities and premature growth retardation.

Three levels of methamphetamine addiction exist. Low-intensity users swallow or snort methamphetamine for weight loss or for shift-worker fatigue. Users often binge and become addicts who smoke or inject methamphetamine. Long-term, high-intensity users repeatedly binge to stop withdrawal pain.

Initial treatment is dependent upon the amount of drugs used. Mild intoxication requires reassurance and a quiet environment. Moderate intoxication requires a powerful sedative such as Valium. Overdoses are life-threatening situations due to the risk of strokes, heart attacks, and dehydration. Available preliminary data on treatment is discouraging. Long-term cure rates for methamphetamine may be less than 10 %, and statistics show high relapse rates six months after treatment. Behavioral treatments may only delay the inevitable return to methamphetamine use and addiction. Dr. Sise opines that we must develop a medication to "rescue" the brain from its state of neurotoxicity.

Q Are antidepressants helpful?

A No; neurotoxicity of the brain lasts up to two years. The synaptic depletion that has occurred requires a return to normal dopamine and norepinephrine levels.

Q At what point is a person beyond rational decision making?

A The very first time they use methamphetamine, and within one hour of using it. This is why we need to get to low-intensity users quickly before methamphetamine permanently affects the brain.

Q Are there any legitimate uses for methamphetamine?

A Doctors prescribe low doses for narcolepsy and attention deficit disorder.

"THE MATRIX MODEL OF TREATMENT," RICHARD RAWSON, PH.D., PRESIDENT, THE MATRIX INSTITUTE, LOS ANGELES, CALIFORNIA

The 4-6 months we refer to as "the wall" is a period of protracted abstinence during which the brain recovers from the changes resulting from methamphetamine use. Our group at UCLA and the West Los Angeles VA is beginning a program of brain-imaging studies (PET scan) to assess the acute and chronic effects of methamphetamine abuse.

The Matrix Model requires staff to have treatment manuals which allow them to create explicit structure and expectations, to establish positive, collaborative relationships with patients, to teach information and cognitive-behavioral ideas and to positively reinforce behavior change. Treatment specialists must deliver information in small quantities because patients do not remember due to damaged short-term-memory skill. Staff must teach users not to use methamphetamine and to incorporate 12-step programs. Regular urinalysis testing is essential to monitor the use of methamphetamine and to learn if such monitoring is a deterrent.

It is vitally important to instruct patients on the effects of methamphetamine abuse on the brain. This helps the addict abstain long enough for the brain to recover. Treatment specialists must also teach patients about why they experience craving, about issues related to alcohol and marijuana use, and about problems with sexual behavior, all of which are affected by the brain.

Q Are these patients unemployed?

A Yes, 70 percent are unemployed and on public assistance. Patients who are employed and have families usually have better outcomes.

Q Which are the largest sources of referrals?

A Most referrals come from child-protective services, friends, and probation.

Q What about relapse?

A Handling relapse is a natural part of treatment. Staff must decide what they can do differently for that patient, make needed adjustments, and increase the intensity of treatment.

"ADDICTION TREATMENT SERVICES IN CORRECTIONAL FACILITIES," REBECCA GAMES, PRESIDENT, GAMES AND ASSOCIATES, AUSTIN, TEXAS

There is a clear need to address the substance abuse problems of the incarcerated population. A 1995 BJS report stated 26 percent of all offenders under state correctional supervision had substance problems prior to their incarceration. Effective drug rehabilitation of this population can lead to reduced crime and incarceration costs.

The most used intensive treatment in state prisons is the therapeutic community (TC). It involves the maintenance of a support environment where the client is actively involved in his or her own therapy. It also contains a confrontational orientation to break down the client's denial so that the client can learn positive behaviors. Reports show these programs work, and they reduce recidivism. The Cornerstone Program in Oregon and Stay N'Out program in New York are good examples. The

speaker recommended Kevin Early's *Drug Treatment Behind Bars: Prison-Based Strategies for Change* (1996, Praeger Publishers) as a reference.

TC experts recommend a program length of 9-12 months and a facility that separates the treatment program offender(s) from the general population. Additionally, male, female and special-needs offenders require separate programs. Continuity in the referral process is considered essential to program success, and there must be an assessment process that measures the severity of the addiction and motivation for treatment.

The TC program must develop genuine support from both security and treatment staff. Selection and training of high-quality staff are important to build the necessary cohesion. The program should have sound management information and evaluation systems. Transition is also part of the process. Effective rehabilitation programs can reduce recidivism and costs. A Texas study found that for every $1 invested in a Substance Abuse Felony Punishment facility, the state saved $1.50 in reduced incarceration costs – a great return on taxpayer money.

DISCUSSION - QUESTIONS AND COMMENTS

- What are your recommendations for research?
- What are your recommendations for prevention and law enforcement policy?
- How can we better integrate the criminal justice system with treatment providers?
- *Sustained treatment referrals from drug courts, law enforcement and emergency rooms are fundamental to success. Resources are scarce, capacity is limited, and reimbursement sources are few – we must change this.*
- *Law enforcement must be a partner in this effort. Court pressure, judicial training, and availability of medication are other important components.*
- *We should concentrate resources to treat people of low-intensity use. We need emergency room protocols.*
- *Mandatory treatment with a system of graduated sanctions, early detection devices like the breath test for alcohol and outcome research distributed nationally is needed.*
- *Treatment should be available, accessible, diverse (including faith-based), well financed, and outcome-based.*
- *Levels of care should include outpatient, residential, acute-care hospital, probation, and incarceration.*
- *Referral points can include self, family, law enforcement, medical, workplace, schools, and the faith community.*
- *Treatment is not always well respected, and mandatory minimum sentencing makes treatment difficult. Where is the support of judges and prosecutors?*
- *Rural areas only have generic treatment services.*
- *We must use the lessons learned from crack; methamphetamine use is not a racial issue.*
- *Small communities have no support systems while Kansas City has five assessment centers where anyone can go and get a referral to treatment centers.*
- *Rural solutions could include circuit rider-type treatment, computer connections within homes to reach chat rooms, telemedicine and traveling hospital buses.*
- *We need research on gender differences and drug use. Why are women using it more?*
- *Duration of treatment is important; many women need a year, but insurance does not pay. How do we get people into treatment before they have major problems?*

Workgroup 4

CLANDESTINE LABS: PROTECTING THE ENVIRONMENT AND COMMUNITY

PRESENTATION SUMMARIES:

"ENFORCEMENT PROGRAM DEVELOPMENT"
GEORGE J. DOANE, CHIEF
CALIFORNIA BUREAU OF NARCOTIC ENFORCEMENT, SACRAMENTO, CALIFORNIA

Chief Doane presented a brief history of the California Bureau of Narcotics Enforcement's (CBNE) experience with methamphetamine abuse. It was not until the 1980s that California began to fully understand the devastating impact of clandestine methamphetamine laboratories as they began to flourish throughout the state. Prior to this time, California law enforcement agencies seized a relatively small number of methamphetamine labs per year. As the number of methamphetamine labs increased, the sophistication level grew, as did the explosions and fatalities.

Consequently, California was inundated with an enormous number of methamphetamine labs. In 1989, CBNE seized as many as 356 methamphetamine labs. Last year, CBNE's methamphetamine lab seizures reached an all-time high of 835 labs, compared to the U.S. Drug Enforcement Administration (DEA) statistics of 850 methamphetamine labs seized for the entire nation. California clearly is the source state for methamphetamine, much as Colombia is for cocaine.

As law enforcement officers continued to struggle with the growing epidemic, they also continued operating under fiscal constraints with limited resources while the labs continued to multiply. In 1995, approximately one of six methamphetamine labs resulted in an explosion. The most widely publicized case was in Riverside County, where a child burned to death in a house trailer as a result of a methamphetamine lab exploding in the kitchen where her mother had been cooking methamphetamine on top of the kitchen stove. The parents would not allow the neighbors to help rescue the child for fear that the neighbors would discover the lab.

Over the years, CBNE made great strides in dealing with clandestine methamphetamine labs. In the early years, agents were not provided with the protective safety equipment that is available to them today. The only protection made available to them were plastic bags and painter masks. Through years of exposure and experience, CBNE began to recognize the health dangers continuously confronted by agents. Through trial and error and with the assistance of the California Environmental Protection Agency and the Department of Toxic Substance Control, CBNE developed safety standards and safety equipment to minimize the risks of hazardous contamination.

CBNE also recognized the need to protect children found at lab sites from toxic exposure to dangerous chemicals. Assistant Chief Mitch Brown of CBNE completed his Masters Degree research on child endangerment at methamphetamine labs. During his research, Assistant Chief Brown found that CBNE encountered 1600-2400 kids per year in drug labs, and typically the children were under the age of 13, with some as young as age 4. Sev-

eral of the children removed from methamphetamine labs were found to have bruises, abrasions and sporadic bald spots on their heads. When tested by the local child-protection services unit, 35 percent of the children tested positive for heavy metals.

When asked what can be done in other states, Chief Doane stressed, first and foremost, that we need to raise the level of awareness by educating the public about the hazards of methamphetamine labs. CBNE discovered the public is unaware and uniformed about methamphetamine labs, and there is a need to educate all agencies, such as child-protective services, social services, emergency rooms and hospitals, and criminal justice.

California was instrumental in the formation of a special ad hoc committee from the Governor's Office of Criminal Justice and Planning. Chief Doane stressed that there is a further need to developed treatment protocols for emergency room staff and nurses who are not familiar with treating this type of exposure. Chief Doane further contended it is imperative that law enforcement enact special policies to deal with children found at methamphetamine labs. Steps need to be in place to have each child taken to protective services for an evaluation to determine the amount of toxic exposure; officials must recommend immediate blood testing to detect toxicity in the blood of children.

Q What kind of interaction do you have with local lab teams? Do you work in an integrated system? In other words, can you go in and work with a lab team from Riverside?

A Yes, that is normal routine. CBNE has set protocols with the local labs. Each officer must complete training before he can investigate that crime. This is standard in California.

"PHARMACOLOGY AND TOXICOLOGY," SCOTT LUKAS, PH.D., ASSOCIATE PROFESSOR OF PHARMACOLOGY, HARVARD MEDICAL SCHOOL

Precursors are substances that, in nature, might very well be inactive. However, when combined with another chemical, a catalyst, the result is a new product. There are many reasons to combine products, but usually it is to increase the activity of that product, as with precursors like ephedrine, pseudoephedrine, and phenylpropanolamine.

One can increase potency, the amount of the drug required to produce an effect. One can increase the duration of action, decrease the metabolism to prevent it from being broken down by the body, or change the profile of effects. Methamphetamine starts with an inactive or marginally-inactive compound, and other chemicals are added to produce the drug. The problem is that many of these chemicals are producing a toxicology and pharmacology that are extremely hazardous.

Natural products are anything found in the environment. Ephedrine and pseudoephedrine come from the plant ephedra, which may well become a new precursor for methamphetamine. The problem with ephedra is that it requires more labor to extract the chemical from the natural plant. It is much easier to work with synthetics.

A synthetic product is something made entirely in the laboratory with compounds not found naturally in the environment. Semi-synthetic products are modifications made to natural products, and that is what methamphetamine is. If one starts with ephedrine, or pseudoephedrine, those compounds which are found naturally, the clandestine lab operator modifies these natural products to produce a different effect.

Methamphetamine synthesis by P2P was placed on Schedule II in 1980, and its use decreased. Conversely, methamphetamine production by the ephedrine-reduction method increased. As ephedrine and pseudoephedrine became scarce, methamphetamine producers began to use another compound called phenylpropanolamine. What is important to remember is that phenylpropanolamine does not produce methamphetamine but amphetamine, which is less potent and not as effective as methamphetamine. Still, it is often sold as methamphetamine.

After 1989, a huge jump in the ephedrine-production model was observed while the

P2P method declined. The ephedrine-reduction method was first observed in 1981 in southern California. Lab operators now prefer it to the P2P method for three major reasons: (1) The process is simpler to conduct, (2) the model is not as strictly controlled under the Controlled Substances Act, and (3) it produces a more potent product due to production of the D-isomer.

Understanding why some of these changes in production methods have evolved is important. Changes started because of availability but also produced more active products. The P2P method makes 50% of the L-isomer, and that isomer is important. The D-isomer and the L-isomer are like the receptors in the brain; the L- isomer only fits on one receptor, but the D-isomer fits all three receptors. Thus, if one starts with ephedrine or pseudoephedrine, more of the D-isomer is produced, and more of the drug fits into the receptor. This means the drug exerts more impact on the brain.

Ephedrine occurs naturally in many plants; it is used as a nasal decongestant and is 10 times longer acting than epinephrine. By itself, ephedrine has low central nervous system (CNS) stimulation except after extremely high doses. Pseudoephedrine has the same profile as ephedrine but even less effect on the brain. PPA was called the "look-alike" drug in the 1970s and 1980s because it was very similar in profile to ephedrine. By themselves, these drugs do not produce the kind of stimulation the amphetamines do. These "look-alike" drugs cause problems because people increase their dosage so much that they developed other organ toxicity, even heart attacks.

Clandestine labs also produce their own toxic dangers. Metals, sulfite agents and solvents are very potent compounds that can enter the CNS and cause neural damage. The P2P method is actually a dirtier method than the ephedrine-reduction method that has fewer byproducts (the only redeeming quality is that this is less of a chemical disaster). Cyanide is also a very potent byproduct in this process. Corrosives and irritants are usually in liquid form, but a gas form also exists. These are very dangerous compounds.

Additionally, solvents, metals and salts are highly reactive. When one mixes these compounds, explosions can occur because many of these processes involve heating. The lab operator may start with two seemingly innocuous compounds, but, after mixing, he creates a highly-explosive compound.

The three main body areas impacted by methamphetamine are the heart, cardiovascular system and brain. Skin exposure to methamphetamine production can ultimately effect the liver and the kidneys. It can also burn the skin, the eyes and the nose, and the corrosive and irritants hurt the eyes and the nose. Cyanide, through inhalation, interrupts the body's ability to metabolize. Methamphetamine has a very specific, specialized, and desired pharmacologic profile.

Its precursors have a much wider spectrum of effects as do the other compounds normally associated with its production. One is not dealing with just methamphetamine but with the pharmacology, as well. Many of these chemicals can remain in improperly-processed batches of methamphetamine, and some toxic effects of methamphetamine may be due to these contaminants and precursors.

Q Can you expand on cyanide as a byproduct?

A These labs are not only methamphetamine labs. Some labs also dabble in other synthetic drugs, such as PCP, which produce an unintended and unknown result. For example, a cyanide byproduct may be produced from a PCP process. Often these labs cook a vat of PCP along with methamphetamine since they use many of the same chemicals. The result is a mixture of different chemical compound elements. It is difficult to state that only certain chemicals are used for methamphetamine and nothing else.

"CLANDESTINE DRUG LAB CLEANUPS: THE CALIFORNIA MODEL"KARL PALMER, CHIEF OF EMERGENCY RESPONSE, CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCE CONTROL, SACRAMENTO, CALIFORNIA

Historically, California law enforcement managed cleanups of drug labs. In the 90s, as

law enforcement resources became more constrained and lab cleanup spending increased, more cost-effective approaches had to be developed. California ultimately tasked CAL/EPA to do the cleanups and reduced the responsibility of law enforcement in this process. The state legislature sponsored a bill which gave the Department of Toxic Substances Control (DTSC) oversight of the environmental cleanup at clandestine labs. The rationale was that CAL/EPA had over 15 years experience doing environmental cleanups of all kinds, emergency cleanups, and working with state, federal and local HAZMAT agencies. It was skilled at health-based and environmentally-based cleanups. The bill passed in 1994, and CAL/EPA started the program in July of 1995.

There is an acute danger at these toxic sites. Signs posted by the Sacramento County Environmental Health Department identify the property as a clandestine lab and state, "Enter at your risk." These are not laboratories in the purest sense; they are "bucket" chemistry, literally. These sites are also dangerous because the labs are not controlled environments. Any number of solvents, precursors and hazardous agents are found in unmarked containers at these sites. The lab operators are not abiding by OSHA regulations to protect themselves or anyone else. The cookers, their families and children are living in the midst of this toxic environment.

Law enforcement and emergency-response officials are faced with extreme chemical threats: Strong acids, strong bases, sodium hydroxide (from lye and products like Draino), red phosphorus, hydriodic acid, hydrogen chloride gas, methamphetamine impurities and solvents (Freon, white gas) as well as the psychoactive drugs. Even in small quantities, exposure can have an impact on human receptors. The dangers are extreme. A lab in Carson, California, in a small motel had three fatalities. The hotel was poorly ventilated. They made a cook in the middle of the night. The people overheated chemicals, thereby creating phosphine gas, which immediately endangers life at 50 parts per million, and the incident crossed that threshold. Law enforcement may be exposed to this type of toxic threat routinely. The danger of fire and explosion risk always exists.

CAL/EPA uses its HAZMAT experience and views methamphetamine labs as hazardous waste sites requiring emergency response. It conducts an inventory of sites and abandonments, waste abandoned alongside the road or at the lab that may not have much enforcement value, yet which is toxic. EPA uses an duty officer who works closely with a CBNE agent or local law enforcement official on each lab seizure. They record what they find, and the contractor also does an inventory for law enforcement purposes. It is a very contract-management-intensive process, but it works well. Even with EPA assistance, a methamphetamine lab cleanup is still a burden on law enforcement because overseeing the scene is still necessary.

What does it cost? When CAL/EPA first started the program for the fiscal year July to June, 1995-1996, there were about $1.4 million in contractor costs. This rose to $2.5 million by year-end. This year, 1996-97, they allocated $5.1 million in contractor costs for cleanup labs. Based on this trend, CAL/EPA estimates an expenditure of $6 million in contractor costs for next fiscal year. The total program costs about $8 million dollars, including staff. It also includes $200,000 a year to train local health, fire and hazard officials about clandestine lab response, not only for safety, but to meet the needs of law enforcement. The participation of these officials, therefore, is a critical component at the local level.

How many labs are cleaned up? In calendar 1996, the agencies achieved a total of 1,313 cleanups combining State and local enforcement task forces. The DEA has cleaned up more than 100 labs, primarily in the San Diego area. About 40 labs were cleaned in July of 1995; the numbers have risen steadily each month. The largest month was February, in which there were 168 labs in a short month. In that month, CAL/EPA had a 24-hour period where 24 labs were cleaned. For May, it was 140 labs. During FY 96/97 (July-June), CAL/EPA's DTSC conducted 1,565 removal actions at clandestine labs.

Finally, a sound cleanup program requires a multi-discipline and multi-agency coordinated approach among law enforcement, task forces, HAZMAT and health officials. Since there are not enough resources to do oversight at every cleanup, CAL/EPA must rely on local health and fire officials to help with the process. Lab cleanups require more training for health, fire, HAZMAT and law enforcement personnel. State EPA must issue guidance to local agencies about procedures after a removal is completed and how they can participate in this process.

TERRY BRUBAKER, SECTION CHIEF, SUPERFUND PROGRAM, U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 9, SAN FRANCISCO

U.S. EPA conducts Superfund removal actions at large drug-lab sites where the cleanup cost exceeds available state and local resources. From this perspective, we have several concerns and observations.

First, methamphetamine labs may be associated with other illegal and hazardous activities, such as bomb making or exotic-chemical experimentation. This increases both the hazards to responders and to the complexity and cost of the cleanup. At one recent site, we expended over $150,000 to identify and dispose of thousands of small containers of such chemicals as hydrazide, picric acid and radioactive isotopes, as well as drug-lab waste.

Second, the issue of responder safety needs additional attention. Many methamphetamine labs have the characteristics of hazardous waste sites, making the invocation of OSHA standards for waste site workers at 29 C.F.R. 1910 an issue. In simplest terms, should law enforcement personnel who are first on-site be offered the opportunity or be required to analyze the risks at labs and undergo appropriate training and wear personal protective equipment? This obviously could compromise the effectiveness of the law enforcement effort if it is not intelligently interpreted. In the short term, we need to improve the awareness of the potential hazards among the law enforcement community and encourage more communication by law enforcement with fire service, HAZMAT and environmental response agencies.

Third, EPA and California are not currently funding the decontamination of structures used as methamphetamine labs. There are no standard protocols for measuring residuals of drugs and precursor chemicals, and there are no standards established for acceptable levels in living areas. From our experience in other parts of the Superfund program, interior assessment and decontamination can easily cost up to $50,000 per unit. Given that the average drug lab cleanup for chemical and gross contamination only is less than $5,000, the implications of a broader policy are obvious. At a minimum, we need to develop valid, standard ways of measuring living-area residuals and of assessing the risk from different residual levels.

Q What are the most serious environmental consequences of abandoned labs?

A The immediate fire, explosion and direct-contact hazards presented by unstable and reactive compounds such as red phosphorus and hydrochloric acid are of first importance; these inorganics do not present a long-term threat since they break down in the environment. Chlorinated solvents are a long-term problem since they can persist in soil and groundwater for years. These are primarily localized concerns, and the quantities of waste are relatively small, but it is very important to locate and excavate burial pits early, since the longer they remain unaddressed, the more the contamination can spread. Cleanup costs are increased because solvent-contaminated soil usually needs to be incinerated.

Q What about contamination of residences or hotel rooms?

A This is a gray area right now; officially, our position is that it is the property owner's responsibility to insure the habitability of a structure that has been used as a lab. The problem is that, once the chemicals and glassware are removed, there are no requirements or standard procedures to identify chemical residuals that may remain. Local law enforcement might not inform the health

agencies of the potential problem. The first step is better and earlier communication among all the agencies. In experienced California localities, cross-notification and response is the norm.

DISCUSSION - QUESTIONS AND COMMENTS

- What are your recommendations for improvement?
- What should other states know about lab cleanups?
- How do we protect children found at these sites?

- *We need to determine training requirements for law enforcement and health officials.*
- *The federal government needs to provide grants and discretionary funds through ONDCP.*
- *Targeted dollars for methamphetamine-lab cleanups must be available through cooperative efforts at the multi-jurisdictional level.*
- *We need to coordinate beyond state boundaries; federal law enforcement must help.*
- *We need those protocols. What do we take from toxic sites, and what do we not, and what do we do with what we do not take?*
- *Funding could include the asset forfeiture fund or another percent tax on chemicals or lab equipment.*
- *Maybe third parties, such as hotel owners, need to generate insurance-type settlements.*
- *There is a definite need for coordinated training and intelligence.*
- *A national model for training is in order; officers are pleading for training.*
- *Two kinds of training are needed; specialized expertise that an entry team needs and basic awareness training for community police.*
- *Law enforcement and OSHA need to develop a joint-training program.*
- *We need shared intelligence, on a regional basis and in CD-ROM format.*
- *DEA is setting up a clan-lab database, and the National Drug Intelligence Center has a clandestine operator's handbook.*
- *We need a clearinghouse for model programs.*
- *The National Alliance of State Drug Enforcement Agencies (NASDEA) is a good conduit for information sharing.*
- *Law enforcement and health personnel need to be cross-trained.*
- *The cost of cleanups can be so prohibitive that small departments cannot afford to undertake the investigation.*
- *Preventing labs from opening should be our priority. How can we make this happen?*

Workgroup 5

DRUG COURTS: COOPERATIVE EFFORTS IN ENFORCEMENT AND TREATMENT

PRESENTATION SUMMARIES

"INITIATING A DRUG COURT: LESSONS LEARNED"
JUDGE RICHARD SHULL, MUNICIPAL COURT WICHITA, KANSAS

Key components of Drug Courts:

- Drug courts integrate treatment in lieu of probation/prosecution. The judge forms a team with drug treatment facilities and the courts.
- People and commitments are the keys to success.
- Personnel must be long term in the project.
- A non-adversarial, team-based approach is required.
- Identify potential participants early, as soon as they enter the court system on the first or second appearance. Otherwise, they may forget the impact the arrest made on their lives. They are looking at jail time and must want to do something to stay out of jail.
- Regular, consistent drug testing is important. Some participants are tested a few times a week, and some are tested daily. Computers are valuable when it comes to this process. Special software can network the entire process together for treatment, court information and drug testing. Dade County has this software.
- Evaluating each case is important. Most drug courts do not accept violent abusers.
- Intervening is important before users become violent.

Prior to the use of drug courts, a person would plead guilty or was found guilty and sentenced to jail time. There was no follow-up, and the judge may never have seen this person again. With the advent of the drug courts, the drug user now comes into court for evaluation and gets into treatment. The judge continues to see the person at least once a month. The treatment facility lets the judge know how the person is progressing with treatment.

As the weeks and months pass, the person may be doing well in treatment, and the judge moves the person through varying levels of care. If the person "tests hot," the judge may extend him or her in the program 6-12 months. However, the offender must pay for it, which is often difficult for the person to afford. These people may need to see the judge once a week. Limited facilities are also a concern as courtroom space is critical.

Federal grants may be used to pay for drug treatment if the person cannot pay. The person should pay, if possible, because he or she buys into the process to a greater extent if he or she must pay for the tests. The Kansas program is only for misdemeanor offenses. Fines increase and jail time is required for pleading guilty – this prevents people from simply pleading out.

Q Regarding the issue of in-prison treatment programs, many law enforcement officials agree that these programs would be helpful. Yet, without an effective measuring

system in place, how do we know the treatment works?

A There is extensive research in this area, but the best measure is the opinion of the judge who monitors the performance of the person. If the person fails, the person will likely be rearrested. Most drug courts are trying to treat people who are minor, nonviolent abusers, who otherwise would not be going to jail. Domestic violence cases are sensitive; perhaps drug courts should take these types of cases, also. Each drug court is different, and they have all started in different ways. American University is an excellent source for additional information.

"TRACKING DRUG COURT PERSONS WITH METHAMPHETAMINE PSYCHOSIS," TOM LELAND, M.D., PSYCHIATRIST, COMMUNITY CARE SERVICES, HONOLULU, HAWAII

Dr. Leland is the Medical Director of a managed-care program with a carve-out for the Medicaid severely mentally ill in Hawaii. He found himself on the fast track to look at treatment resources for chemically-dependent persons with a dual diagnosis of mental illness. The "ice" epidemic started about 15 years ago in Honolulu; batu was everywhere. The emergency rooms are filled with methamphetamine toxicity cases each day; people are hallucinating and delusional. Dr. Leland became concerned about the issue of methamphetamine-induced psychosis as he observed people having persistent hallucinations and delusions a year after sobriety.

Dr. Leland's main concerns:

- Is methamphetamine-induced psychosis persistent? Does it cause latent schizophrenia?
- Does the brain damage caused by methamphetamine disappear over time?
- There is heavy use of anti-psychotic medicine to stop the hallucinations and abuse; this cycle is lethal.
- Users are at risk for unsafe sex and HIV
- Methamphetamine is very addictive.
- The brain's supply of dopamine drops to zero, and when methamphetamine depletes amino acids, there is long-lasting dysphoria.
- The drug is inexpensive and easily attainable.

Many patients presented to the emergency room with methamphetamine use were given brain scans, and the results were very alarming to physicians. However, the follow-up for a second scan was zero. Dr. Leland would prescribe Risperidone, which stops the psychosis and is preferable to Haldol. After taking Risperidone, the methamphetamine user would feel a bit calmer, but there was no further follow-up.

Dr. Leland's team would like to see follow-ups, to see if brain damage is persistent over time. Specialists at the nuclear medicine department at Queens Medical Center studied areas of the brains of methamphetamine users. They found the brain had such diminished blood flow that the pattern looked like Swiss cheese. The "holes" showed places in the brain with reduced blood flow. Damage was very extensive and might not repair itself once the person stopped using. This information may be useful in educating kids about drugs.

Methamphetamine is very addictive; the prognosis of addiction is poor. Addicts have done well in residential treatment but start using again after treatment. No one knows what the outcome would be with managed-care programs that pay for addiction treatment with no limit to bed days and number of visits. Thus, the treatment process does not give much optimism. It seems that psychiatry has little to offer this group of addicts.

The driving force for Dr. Leland to turn to the drug courts was to find a clean and sober population and have access to patients for repeat PET scans. Criminals are difficult to transport to the hospital for repeat scans. Dr. Leland offers treatment to drug court candidates, and Dr. Charles Brodahn performs neuropsychological testing.

Judge James Aiona operates the drug court in Hawaii, and he sees clients weekly. He has a large treatment team, and he is assertive and

enthusiastic about the program. The drug court started 18 months ago after two years of extensive planning. At the end of the first year, 11 persons graduated. In two weeks, the program will graduate another 24 people. Seventy percent of drug court candidates were using stimulant drugs, half of which were methamphetamines.

Judge Aiona's court specializes in pre-trial or post-conviction felons. The adult probation division manages most of them. The carrot that he uses is dropped charges; the stick is prison. The Hawaii drug court has an active staff, an outpatient program, weekly drug screens, and supervised living for high-acuity persons. The prosecutor screens out violent felons. As long as the drug courts are in place, researchers can get more scans and, in a year or two, should produce a study about brain damage prognoses.

"MATRIX MODEL OF TREATMENT," ALICE HUBER, PH.D., THE MATRIX INSTITUTE, LOS ANGELES, CALIFORNIA

Dr. Huber is a clinical psychologist specializing in substance abuse treatment and treatment research. The Matrix Institute is affiliated with UCLA and conducts considerable research and also trains health-care professionals. The program is unique in that it was founded by psychologists using treatment methods proven to be successful. Comprehensive treatment manuals are used at Matrix; these manuals were developed by listening to addicts and learning what is working.

Methamphetamine dependence is a disease that causes changes in the brain. PET scans show the use of methamphetamine causes the brain to function poorly, and this damage persists over a very long period. Willpower alone will not cure these addicts. There are psychiatric, social and biological components to dependence. Sharing this information with patients is important.

Methamphetamine addicts get over the worst of the withdrawal period very quickly. However, the "wall" period lasts 6-8 months. This is a period where recovering addicts feel down, fuzzy-headed, and are thinking, "If this is what life is like, I should go back to using." Addicts must know they have a long road ahead of them. Although there is severe impairment, with time, the person can get back to fairly good functioning.

The methamphetamine problem in California has increased, although it has been there a long time. One Matrix clinic in California treated 724 stimulant abusers from 1991-95. A chart review at this site indicated that the age of first methamphetamine use has decreased; many users start in early adolescence. Smoking and snorting the drug are the most common methods of ingestion in California.

More women are likely to start using methamphetamine than cocaine. Users often have a perception that methamphetamine is not really a drug. Initially, people use methamphetamine to control weight and to get more accomplished; they are then surprised to become addicted. In southern California, Caucasians are using more methamphetamine than any other ethnic group. Intravenous users tend to have even more problems than other users.

The organizing principles of the Matrix treatment model provide:

- Explicit structure and expectations.
- Establish a positive, collaborative relationship with the patient.
- Teach information and cognitive behavioral concepts.
- Reinforce positive behavior changes.
- Provide corrective feedback when necessary.
- Educate family regarding the patient's recovery.
- Combine individual, family and group sessions.
- Use a program that lasts six months.
- Design in phases that decrease in intensity.

The Matrix experience is that inpatient programs are not as effective in treating methamphetamine addiction; 30 days of treatment alone is insufficient. At Matrix, 50 percent of patients are in treatment for at least 12 weeks; these people receive a meaningful treatment

experience. After a 1-5 year follow-up, 80 percent deny use, and 20 percent are using.

If there is a good program in place for cocaine, one can probably use something similar for methamphetamine users. Stages of recovery include immediate withdrawal and then a honeymoon period during which patients feel they are better; then comes the "wall" period during which patients do not feel right. Treatment personnel need to help patients understand they must get past this period. Key relapse issues are similar to that of cocaine use and include other drug and alcohol abuse and being around drug-using friends. Dr. Huber advises that judges know the program to which they are referring patients. The program must know how to treat methamphetamine addiction specifically.

"CRIMINAL JUSTICE AND METHAMPHETAMINE," JUDGE JAMES LIVINGSTON, DISTRICT JUDGE, GRAND ISLAND, NEBRASKA

Judge Livingston discussed the effect of drug courts in criminal justice systems in relation to methamphetamine use. The district court is the highest level of trial court in the state of Nebraska. At this point, courts that ultimately define a remedy for the individual and the community do not have resources available to them to resolve the problems that exist.

The justice system is very reactive; the criminal element is always in front of the justice system, always dictating what judges need to do. Methamphetamine addiction is relatively new in Nebraska; by the time resources are committed to the methamphetamine problem, it will exist in a different form. Existing programs are not trained to treat abusers of methamphetamine. Ninety-five percent of these people do not have insurance. The methamphetamine abuser is not in treatment voluntarily, and sending them to treatment as a condition of probation or sentence is difficult.

It is difficult for the judge to say to a person, "Do not violate your probation or you will go to jail for committing a crime against yourself." What happens when a report is received from the treatment center stating the person does not believe he truly has a problem – does the judge put the person in prison at this point? The judge does not have the resources to handle offenders in this area. The psychiatric make-up of these addicts has changed; people are more violent, and judgment is more clouded. Rural areas have even more difficulty in finding good programs to treat these kinds of addictions.

"PROSECUTION ISSUES," LARRY FERRELL, J.D., ASSISTANT U.S. ATTORNEY, ST. LOUIS, MISSOURI

The State of Missouri ranks second only to California in terms of methamphetamine labs seized in the past year. Southeast Missouri accounts for a large portion of the seizures. The national media is going to Southeast Missouri for information on the methamphetamine cases, including not just production but other crimes associated with the use of methamphetamine. Clearly, methamphetamine is becoming the drug of choice. Methamphetamine is not necessarily an urban problem; much of the problem lies in non-urban areas. Most who make the drug are not exporters; they are able to use and sell it in the small communities in Missouri.

Federal and state funding for drug courts is dependent on the volume of cases. As a result, there are no drug courts in non-urban areas in the Missouri. Funding must be prioritized for multi-jurisdictional drug courts in non-urban areas; a current Weed and Seed initiative in Southeast Missouri is working to create a multi-jurisdictional drug court. The key is to find judges and prosecutors who will take the idea and run with it. Methamphetamine is a highly-addictive drug, and those who are addicted to it are in need of highly-structured rehabilitative programs. These programs are best implemented through the drug court system because drug courts are directed toward the users and the addiction, not toward trafficking and production. A regional strategy to develop drug courts would help non-urban areas.

DISCUSSION - QUESTIONS AND COMMENTS

- Can drug courts effectively handle the meth addict?
- What are the impediments to drug court expansion?
- What are your recommendations for improving the treatment process?
- *More types of treatment need to be integrated in the drug court process.*
- *Drug courts add structure and accountability on a regular basis.*
- *How do we evaluate the different programs that are available? Most drug courts have a single treatment provider, which may not be the right approach. We need to get clinical input before deciding which treatment program to use.*
- *Financial payment requirements may cause the treatment dropout rate to increase.Judges need to be careful in this assessment.*
- *Separate the assessment from the treatment and the drug testing. Be sure the testing program will catch people who are relapsing. Methamphetamine disappears from the blood system within 48-72 hours.*
- *Insurance/managed-care programs may be a source of help to pay for treatment.*
- *It is hard to be responsive because small programs do not serve many patients. Designing different treatment approaches in these small communities is difficult. A regional approach would be more effective for training and treatment methods. This would help rural areas that do not have the population base to operate specialized programs.*
- *Judges must accept that relapses will happen. Prudent evaluation is needed.*
- *Drug courts should be set up at different levels, some of which deal with violent criminals.*
- *Treatment should be available while a person is in jail to increase the successful ability to be paroled. Fifty percent of those in jail are there due to drug-related offenses.*
- *Use federal funds for the inception of the program as seed money to hire staff. Allow matching state/local funds for staff to run the program and search for treatment funds elsewhere.*
- *It is important that the immediateness of sanctions and the immediacy of treatment occur.*
- *We should design programs to meet employment, scholastic and social needs. Drug courts can be used as the impetus to go beyond evaluation and treatment.*
- *Many managed-care programs have declined to pay for substance abuse treatment, and we must change this. Costs get dumped on the courts. Recommend at the federal level that insurance companies not be allowed to exclude coverage for drug abuse treatment.*
- *Many organizations have free publications that we should obtain and distribute in our communities. Take information to state bar and state judge's meetings.*
- *We need to get funding for training back into local systems. Training is not a luxury.*

Workgroup 6

PRECURSOR CHEMICAL CONTROL: DOMESTIC AND INTERNATIONAL EFFORTS

PRESENTATION SUMMARIES:

"TOXIC EFFECTS OF METHAMPHETAMINE"
WALTER LING, M.D., DIRECTOR
THE MATRIX INSTITUTE, LOS ANGELES, CALIFORNIA

The toxic effects of methamphetamine can occur during manufacturing, use, and fetal exposure. During the manufacturing process, the immediate environment – air, water, soil – may be contaminated. Law enforcement officers working in such an environment are in danger, as are the manufacturers themselves, and even bystanders. Physically, the central nervous system (CNS) shows toxicity through acute and chronic psychosis, stroke, and seizures. Other organs affected, include the heart, lungs, liver and kidneys, will manifest symptoms clinically as acute cardiac arrhythmia and myocardial infarction, pulmonary congestion, chronic obstructive lung disease, and renal and hepatic failure. Exposed fetuses may die in utero, or may experience early- and late-developmental effects.

"THE METHAMPHETAMINE CONTROL ACT OF 1996"
HARRY MATZ, J.D. U.S. DEPARTMENT OF JUSTICE, WASHINGTON, D.C.

On October 3, 1996, the President signed the Comprehensive Methamphetamine Control Act of 1996 (Meth Act). Criminal penalties for methamphetamine trafficking were not affected by the Meth Act, for practical purposes. When the law and Sentencing Guidelines are taken together, the basic, mandatory-minimum sentences remain:

- 10 grams (pure) = 5 years in prison
- 100 grams (pure) = 10 years in prison

The Meth Act raised the maximum penalty for trafficking in precursor chemicals, and the Sentencing Guidelines implementing the law provide for some increased penalties for precursor trafficking, along the following (simplified lines):

- 2-6 kilos of ephedrine/pseudoephedrine = 5 years
- 20 kilos or more = about 9 years (no quantity can yield a 10-year sentence for a first offense)

The law raised some penalties for selling chemicals or other materials knowing that they would be used to manufacture methamphetamine.

Civil remedies were also added and strengthened. An innovative provision of the Meth Act permits the government to seek a civil penalty of up to $250,000 for sale of a "laboratory supply" (listed chemicals plus other supplies to be specified by the DEA) to a person who uses or attempts to use them to manufacture a controlled substance, where the sale is with "reckless disregard" for the illicit use. The Meth Act also authorized the government to seek additional injunctive and declaratory relief to stop violations.

The Methamphetamine Act also strengthened the DEA's chemical regulatory system by eliminating or narrowing the regulatory exemptions for certain drug products containing the precursor chemicals ephedrine,

pseudoephedrine, and phenylpropanolamine. Under the new law, however, a retail sale of a drug product containing pseudoephedrine or phenylpropanolamine is exempt from regulatory requirements if either:

- less than 24 grams are sold in a single transaction, or
- the product is sold in "blister packs" (solid form) or other small package sizes (liquid form).

One year after enactment, the DEA may seek to remove the blister pack exemption and establish a straight, 24-gram retail limit, whatever the form of packaging. To do so, it must find there have been significant and widespread retail-level diversions of the exempted products for the illicit manufacture of methamphetamine or other controlled substances.

"CALIFORNIA ENFORCEMENT FINDINGS" EDWARD MACHADO, SPECIAL AGENT CALIFORNIA BUREAU OF NARCOTIC ENFORCEMENT

The two largest means of acquiring a supply of precursor chemicals for methamphetamine are mail order and retail sales. In California, most pseudoephedrine is purchased on mail-order forms in 60-milligram tablets. California has a precursor act that is important in controlling illegal production.

"INTERNATIONAL ISSUES" WILLIAM WOLF, CHIEF OF CHEMICAL OPERATIONS DRUG ENFORCEMENT ADMINISTRATION, WASHINGTON, D.C.

All ephedrine, pseudoephedrine and phenylpropanolamine chemicals are imported into the United States; Germany is the biggest exporter of ephedrine, and China and India are the other major exporters of both ephedrine and pseudoephedrine. Taiwan and Japan are the major exporters of phenylpropanolamine. Ephedrine smuggling to the United States comes primarily from Mexico.

Internationally, initiatives include pre-shipment notification where countries tell each other through formal agreements when they are making a shipment. Surveillance lists are developed on an international level. INCB, E.U., OAS and CICAD are working to develop awareness of the dangers of these chemicals and how they arrive in these countries.

The diversion of pseudoephedrine tablets into domestic clandestine labs has replaced much of the ephedrine previously obtained in the international market. We have seen declared legal imports of pseudoephedrine rise from an annual average of 420 metric tons prior to 1994 to 699 metric tons in 1996. Seizures of clandestine labs where pseudoephedrine tablets were the primary precursor rose from 2 in 1992 to 550 in 1996; total meth labs seized by DEA in 1996 rose 169% over 1995. Wal-Mart has stepped up to the challenge and implemented voluntary restrictions on the amounts they will sell to individual customers at a lower level than the law will require in October, 1997. We suggest businesses replicate the Wal-Mart/Price-Cosco initiatives with voluntary controls such as:

- Source tagging where the item "beeps" if not cleared by the cashier.
- Point-of-sale scanning.
- Signs in the stores to promote public awareness.
- Retail clerk education and awareness training.
- Developing liaisons with local enforcement agencies.
- Developing software packaging that tracks purchases and automatically faxes threshold variances to the DEA.
- Reducing the size of the bottles and amount of tablets.
- Reducing the size of stock.

How do we get retail industry to tell us when the trend of purchases changes from one product to another? How do we develop a relationship with them to have an exchange of information on a regular basis? Here are some ideas:

- Funnel information sheets from the DEA through state agencies.

- Work with national and local pharmacy organizations.
- Use conferences to spread the word.
- Identify the legitimate markets.
- Instruct manufacturers on how the products are used and the product origin.
- Build a national lot-number database.
- Provide access to information for local agencies to review and update.
- Add articles about the methamphetamine problem to industry journals.

To target illegitimate suppliers (mail-order suppliers), we can require that wholesalers notify retailers, especially convenience stores, of large shipments or mark each box with a disclaimer (the Office of Alcohol and Beverage Control could notify gas stations and convenience stores since they regulate these retailers). Funding is needed to enforce diversion control. Civil actions to counter rogue businesses can include:

- Requiring retailers to prove legitimacy.
- Developing an enforcement team with expert civil prosecutors.
- Targeting and recording intelligence.
- Increasing training for law enforcement civil agencies.

DISCUSSION - QUESTIONS AND COMMENTS

- What are your recommendations for improvement at international and domestic levels?
- How can the private sector assist?
- What should the public know about these areas?

INTERNATIONAL:

- *Phenylpropanolamine needs to be subject to the U.N. Convention control.*
- *We must focus on Mexico to curtail smuggling.*
- *We should educate Canada about the problems of precursor drugs.*
- *We need to notify inspectors of repeat offenders and suspicious shipments.*
- *Precursor chemicals should be a topic for the U.N. meeting.*

DOMESTIC:

- *It is vital to replicate Wal-Mart and Price-Cosco initiatives.*
- *We must work in a partnership with legitimate retailers by making suggestions for reducing and controlling stock.*
- *We should direct the Sentencing Guidelines Commission to evaluate, enhance and increase sentencing for amphetamines.*
- *The FDA should encourage development of alternate forms of these OTC drugs.*
- *We need a nationwide notification process when chemical shipments are diverted.*
- *The pharmaceutical industry needs an educational package about this issue.*
- *Law enforcement will work cooperatively with any industry or educational entity.*
- *Can we make a standard to mark the boxes and require proof of legitimacy?*

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